

July 13, 2022

The Honourable Steven Guilbeault
Minister of the Environment
c/o Christina Paradiso
Executive Director Chemicals Management, Environmental Protection Branch
Department of the Environment
351 Saint-Joseph Boulevard, Gatineau, Quebec K1A 0H3
Email: ec.interdiction-prohibition.ec@ec.gc.ca

Re: Notice of Objection and Request for Board of Review in relation to proposed regulations prohibiting the manufacture, use, sale and import of decabromodiphenyl ethane (DBDPE, CAS Registry Number 84852-53-9) and polybrominated diphenyl ethers (PBDEs) while providing exemptions to the prohibitions, Canada Gazette, Part I, Volume 156, Number 20 – May 14, 2022: Prohibition of Certain Toxic Substances Regulations, 2022.

Dear Minister Guilbeault:

Our company/organization writes to express our formal objection to the above-referenced regulatory proposal. Teknor Apex manufactures thermoplastic elastomer compounds, some of which contain DBDPE. Most of the applications containing DBDPE are used in the automotive and wire coating industries, including applications requiring third party certification, such as those issued by UL or CSA. DBDPE is unique among flame retardants because of the quantity of flame retardant atoms (Bromine) per molecule, which allows a relatively small amount of material to be used in a finished compound while achieving the required flame retardant rating. In general, increasing the amount of flame retardant in a compound results in loss of other material properties and limits the processing substantially. Teknor Apex has evaluated other materials and has not identified a direct substitution for DBDPE. Other flame retardants cannot match the performance of DBDPE either when processing the compounds into articles or during the article's end use.

Prohibiting the import of pellets or articles containing DBDPE would force us to withdraw our products from applications requiring flame retardant ratings. Article manufacturers would need to retool their process to make components using alternative materials with no guarantee that they could meet the technical and flame retardant ratings.

As provided for by section 332(2) of CEPA 1999, Teknor Apex Company is filing this Notice of Objection and respectfully request that a Board of Review be established, pursuant to section 333 of CEPA 1999,



to “inquire into the nature and extent of danger” posed by DBDPE and PBDEs for the reasons set out below.

Proposed Risk Management Measures May Lead to Severe Risk to Public Health and Safety

DBDPE performs a valuable function by reducing the flammability of the products where it is used. Those products include consumer devices, appliances, and motor vehicles. In the absence of alternatives, the prohibitions pose a genuine risk of increasing flammability of those products therefore creating a severe risk to public health and safety.

Different situations call for different types of flame retardant compounds. DBDPE can be combined with polymers that are chemical and water resistant and flexible in low temperature use. Switching to a different type of flame retardant will force a change in the polymer, compromising performance in other areas, while increasing the chance for component failure and fire.

One example is with wiring in an automobile. As the wire ages, it can crack, exposing the bare metal of the wire. If debris were to accumulate nearby, the heat from the exposed wire could result in a fire in the vehicle. Removing DBDPE from the Canadian market will result in the use of formulations that do not perform as well in harsh environments, resulting in faster degradation of vehicle components and increasing the potential for vehicle fires to start.

Proposed Risk Management Measures for DBDPE are Not Aligned with Other Regulatory Agencies or Agreements

The proposed risk management measures as set out in the proposed Prohibition of Certain Toxic Substances Regulations, 2022 (the “draft Regulation”) for DBDPE are an outlier globally. No regulatory authority in the world has proposed risk management measures as sweeping as those set out in the draft Regulation. Canada is acting alone to prohibit DBDPE. By way of example, the United States Environmental Protection Agency (U.S. EPA) is not currently conducting a risk evaluation for DBDPE and is not contemplating risk management measures.

ECCC has noted that Canada is a party to the Stockholm Convention on Persistent Organic Pollutants (POP), and that the proposed risk management measures would allow Canada to meet “its international commitments implementing amendments to the Stockholm Convention.” Yet, DBDPE is not listed as a POP under the Stockholm Convention. ECCC also cites meeting the goals of the Great Lakes Water Quality Agreement as a justification for its proposed risk management measures, even though DBDPE is not listed as a Chemical of Mutual Concern as part of the agreement. Accordingly, neither rationale justifies the proposed risk management measures.

Last, the Final Screening Assessment of DBDPE (the “Final Screening Assessment”) published in the May 11, 2019 Canada Gazette, Part I, as well as the Proposed Order to add the substance to Schedule 1 of the Canadian Environmental Protection Act, 1999 published in the June 29, 2019 Canada Gazette, Part I



Notice, and the subsequent draft Regulation are inconsistent with the U.S.-Mexico-Canada Agreement (USMCA), which requires a risk-based approach to chemical regulations.

Any risk management measures for DBDPE need to align with other national and international regulatory bodies and with international agreements to avoid potential unintended consequences that could negatively affect Canadian consumers and businesses operating in Canada.

Proposed Risk Management Measures May Lead to Supply Chain Disruptions

Product manufacturers operate in a global regulatory environment and must take into account a broad range of product safety and design factors. This includes considerations related to product certification, performance, use and end of life, and even chemical registration. These regulatory, design, and performance requirements are addressed through a complex global supply chain for components and subcomponents.

A 2020 socioeconomic study commissioned by ECCC on DBDPE in the Canadian market noted that “at this time, effective fully tested alternatives are not currently known for many critical applications.” ECCC suggests that its consultations with industry stakeholders have helped it develop permits and exemptions to address the lack of available alternatives to DBDPE. However, these permits and exemptions are insufficient in addressing the lack of available alternatives for DBDPE. ECCC notes several times during the draft Regulation that there is a lack of data and certainty regarding cost and availability of alternatives to DBDPE for some critical applications, and consequently that compliance costs have not been estimated for proposed risk management measures affecting wire and cable, automotive products, and other applications.

The engineering and certification of products is a time-consuming process that can take years, and there are considerable financial costs involved in this effort. Teknor Apex designs products to meet relevant safety standards and to be safe when used as intended. If this regulation were to be put in place, components of automotive, medical, consumer, electrical, and construction products that rely on DBDPE would become unavailable in Canada as companies fail to find plastics that meet the performance requirements needed. Given the lack of available alternatives for DBDPE and unknown costs of compliance with the regulatory proposal, ECCC must revise its approach in regulating DBDPE to avoid disruptions to an already overburdened supply chain.

Final Screening Assessment for DBDPE Ignores the “Weight of the Evidence”

As a downstream user of DBDPE, Teknor Apex has reviewed the data that have been developed by NAFRA regarding the degradation of DBDPE in the environment. We agree with the conclusions contained in the comments submitted by that organization that ECCC’s conclusions are not supported using a weight of evidence requirements contained in CEPA. More importantly, ECCC has not substantiated that the application of the precautionary principle is appropriate based on the differences in the chemical structure of DBDPE from that of decabromodiphenyl ether (decaBDE).



Proposed Risk Management Measures for PBDEs do not Align with Global Regulations and Restrictions

As mentioned earlier for DBDPE, it is also important that risk management measures for other substances align with global agreements and regulations. That is true for PBDEs, a group of flame retardants which have largely been phased out in Canada and around the world and are no longer being produced. At present, Canada already prohibits the manufacture, use, sale, offer for sale, and import of PBDEs, including decaBDE, and all products that contain PBDEs except for manufactured items. Canada's current regulations for PBDEs are largely consistent with international regulations for PBDEs.

ECCC proposes eliminating the exemption allowing the manufacture, use, sale and import of manufactured items containing PBDEs with a few exceptions. In addition, the presence of each PBDE congener (e.g., decaBDE, octaBDE, etc.) in a substance, mixture, polymer, or resin is proposed to be incidental at a concentration less than or equal to 10 parts per million (ppm). The presence of PBDE congeners in all other products is proposed to be incidental when the total concentration of all congeners is less than or equal to 500 ppm.

In contrast, the European Union's Restriction on Hazardous Substances (RoHS) requires electrical and electronic products to contain less than 1,000 ppm or 0.1% of PBDEs. Further illustrating the complexity in finding alternatives for some substances, although five PBDEs are listed as POPs by the Stockholm Convention, all of them still have some specific exemptions on a time-limited basis. U.S. EPA is also considering additional risk management measures for decaBDE, with a proposal for a new rulemaking expected in Spring 2023.

The proposed risk management measures for PBDEs could put Canada at odds with some of its largest trading partners and consideration should be given to global regulatory alignment, circularity goals, and potential disruptions to critical sectors in the country.

Based upon the facts and arguments set out above we ask the Minister to appoint a Board of Review to "inquire into the nature and extent of danger" posed by DBDPE and PBDEs.

Sincerely,

A handwritten signature in blue ink that reads 'Thomas J. Hmiel'.

Thomas J. Hmiel
Global Director of Regulatory Affairs
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